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Preface

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This Special Issue of “Flow, Turbulence and Combustion” (FTaC) contains 16 extended and revised articles selected from papers that were presented at the 5th International Symposium on Turbulence, Heat and Mass Transfer (THMT-5), held from September 25 to 29, 2006 in Dubrovnik, Croatia.

The THMT Symposium, focusing on heat and mass transfer issues related to turbulence, is a triennial ICHMT meeting, initiated by the Joint ICHMT/IUTAM Symposium on Structure of Turbulence, Heat and Mass Transfer, which was organized in Dubrovnik in 1982. After a decade-long break, the event was revived and since 1994 held regularly at various locations worldwide (Lisbon, Delft, Nagoya, Antalya, Dubrovnik).

The selected papers for this issue of FTaC reflect only in part the broad spectrum of topics covered in the Symposium, substantiating again the fact that turbulence plays a key role in convective heat and mass transfer. Novel experimental techniques and powerful computing hardware are unveiling ever new prospects for gaining deeper insight into turbulence structure, its interactions and effects on heat and mass transfer, as well as for resolving many longstanding problems and challenges. A large number of contributions (7 keynote and 169 contributing papers) presented at the Symposium are the best indicator of vigorous worldwide research activity in this field.

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Selecting articles for this Special Issue posed a challenging task. The selection was based on the recommendations from the members of the Symposium Scientific Advisory Committee, session chairmen and guest editors, on the basis of quality and scientific novelty, as well as the relevance to the journal scope and focus. Admittedly, some interesting papers could not be included because of the journal page limitation. This has been compensated by the recent publication of another set of selected papers from this conference in a Special Issue of the Elsevier International Journal of Heat and Fluid Flow.

The editors believe that this Special Issue of Flow, Turbulence and Combustion will serve as a valuable source of information and reference, as well as inspiration for new advancements in the field of turbulence-related heat and mass transfer.

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